

Claims

1. A cleaning device, preferably for WC toilets (1) and the like, including a brush (11) comprising a substantially cylindrical brush head (11', 11") connected to a shaft (7, 53) or handle (7', 58), the brush head (11', 11") being provided, in a manner known per se, with radially extending bristles (6), characterized by a combined storage and cleaning assembly comprising a substantially cylindrical structure (3, 3.1, 3.2, 3.3, 3.4) encompassing the brush (11) and allowing the brush to move axially within the structure (3, 3.1-3.4), which in the storage position of the brush (11) accommodates the head (11', 11") of the brush (11) resting in the lower portion of the structure (3, 3.1-3.4), said cylindrical structure preferably being a circular cylindric wall structure comprising openings (4, 4.1, 4.2, 4.3, 4.4) leaving intermediate wall portions (5, 5.1, 5.2, 5.3, 5.4) of which at least one axially extending area (3") has an inner diameter smaller than the outer diameter of the brush head (11', 11") so as to cause the bristles (6) of said head (11', 11") to be momentarily bent (6') by said at least one wall portion (3"), when the brush (11) is moved within the structure (3, 3.1-3.4), to then flip back when reaching an opening (4, 4.1-4.4), the brush bristles (6) thus being subjected to a cleaning action, the structure in storage position being submersed in water encompassing the aggregate to such level (10, 10') that at least the head (11', 11") of the brush (11) be covered.

2. A device according to claim 1, characterized in that the structure (3) has the form of a coiled wire (3), preferably a spring wire, the structure being radially contracted within one area (3") thereof, forming said at least one axially extending area (3"), the space (4) in between the turns (5) of the spring forming the openings (4) in the wall structure (3), said openings delimiting the wall portions (5).

3. A device according to claim 2, characterized in that, at each end of (3') of the

spring (3), there is arranged a support (17, 18; 24) supporting the ends (3') transversely as well as axially.

4. A device according to claim 3,
characterized in that the supports (17, 18; 24) comprise, in the axial direction of the spring, extensions (17, 18; 24) from the bottom and the top of the cistern respectively, the height of each extension (17, 18; 24) being designed such that, when the brush (11) is axially moved in the wall structure (3) and the bristles (6) of the brush head (11', 11'') are bent (6'), and exert an axial pressure on the turns of the spring (3), the end (3') of the spring is not lifted off the support (17, 18; 24).

5. A device according to claim 2,
characterized in that the inner diameter of the lower part (3') of the spring (3) is greater than the outer diameter of the brush head (11', 11''), the brush head thus being stored in free position.

6. A device according to claim 1,
characterized in that the wall structure (3.1, 3.2) is composed of a plurality of rings (5.1, 5.2) arranged transversely to the axis of the structure (3.1, 3.2) and interconnected by axial rods (12, 13), openings thus being defined by rings (5.1, 5.2) and rods (12, 13).

7. A device according to claim 1,
characterized in that the wall structure (3.3, 3.4) is composed of a cylindrical metal or plastic shell, perforated by apertures (4.3, 4.4), preferably having tongues or flaps (5.4) stamped inwardly from the shell, the inner free diameter of the structure being smaller than the outer diameter of the brush head (11', 11'').

8. A device according to claim 1,
characterized in that the upper part of the shaft (7, 53) of the brush (11) is provided with a template (8) to

cover the upper opening (41) through which the brush (11) is introduced into the structure (3, 3.1-3.4).

9. A device according to claim 1,

characterized in that the device comprises a separate housing (25) accomodating a wall structure (3, 3.1-3.4) and a brush (11', 11"), said housing (25) being secured to the outside of the cistern (2') of a toilet, including a fluid connection (30, 49) allowing flushing water to flow from and to the housing (25) from the WC cistern (2'), thus keeping the water level (10') in the housing (25) to the same level (10) as in the WC cistern (2').

10. A device according to claim 1,

characterized in that the shaft (53) of the brush is detachably and rotatably connected to the head (11") of the brush, preferably by means of a bayonet-like coupling between head (11") and brush shaft (53), the head being provided with a plurality of axially projecting resilient arms (56) having at their end hooks (56') or claws directed inwards and adapted, when the brush head (11") is pushed onto the shaft end (63), by a conical shaft portion (62) to be bent outwards so as to lock behind an end surface (61') of a body (61) thus securing the brush head (11") to the shaft (53), said body (61) being integrated with the shaft (53) and having a greater diameter than the shaft end (63), said conical shaft portion (62) comprising a truncated conical portion (62) the end diameters of which correspond to the ones of the shaft (63) and body (61) respectively.

11. A device according to claim 10,

characterized in that said body (61) at its cylindrical outer surface has cams (64), forming a part of a spiral formed surface, said cams (64) in the locked position of the brush head (11") being located a short distance below the hooks (56') and arranged such that they upon rotation of the shaft (53) will force the arms (56) outwards to cause the hooks (56') of the arms (56) to disengage said body surface (61') and release the brush head (11") axially.